

NCPA 50th Anniversary: 2018 Annual Conference

California's Clean Energy, Climate Change & Wildfire Strategies



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September 22, 2018
California Energy Commission



2016 Greenhouse Gas Inventory

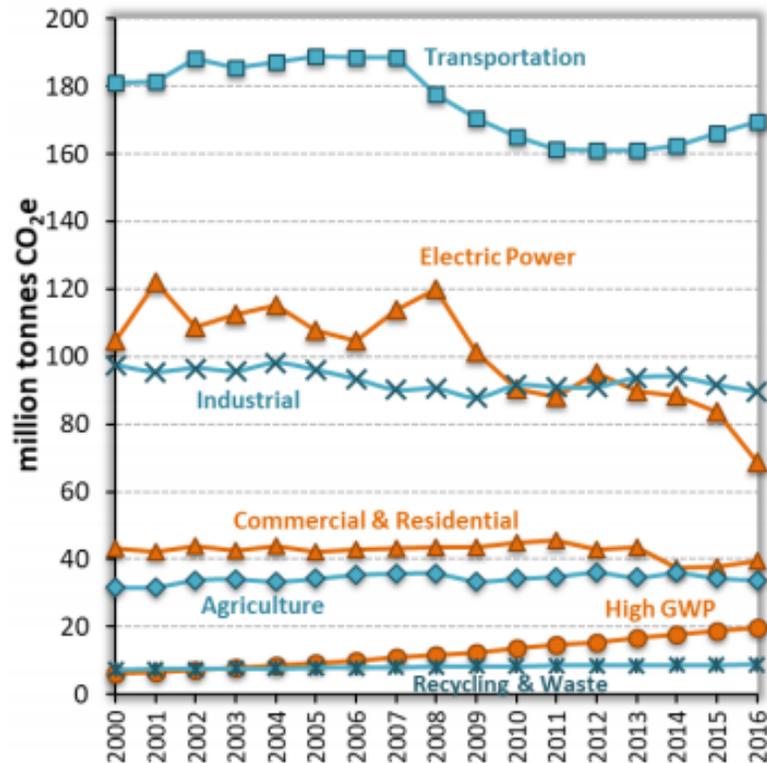


Figure 2. Trends in California GHG Emissions. This figure shows changes in emissions by sector between 2000 and 2016. Emissions are organized by the categories in the AB 32 Scoping Plan.

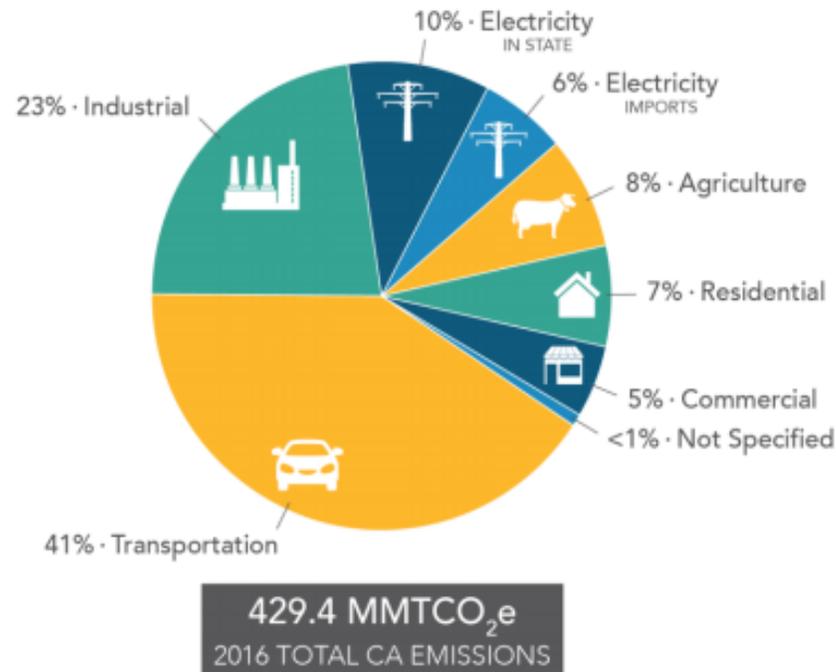


Figure 3. 2016 GHG Emissions by Sector.** This figure shows the relative size of 2016 emissions by sector. Emissions are organized by the categories in the AB 32 Scoping Plan.

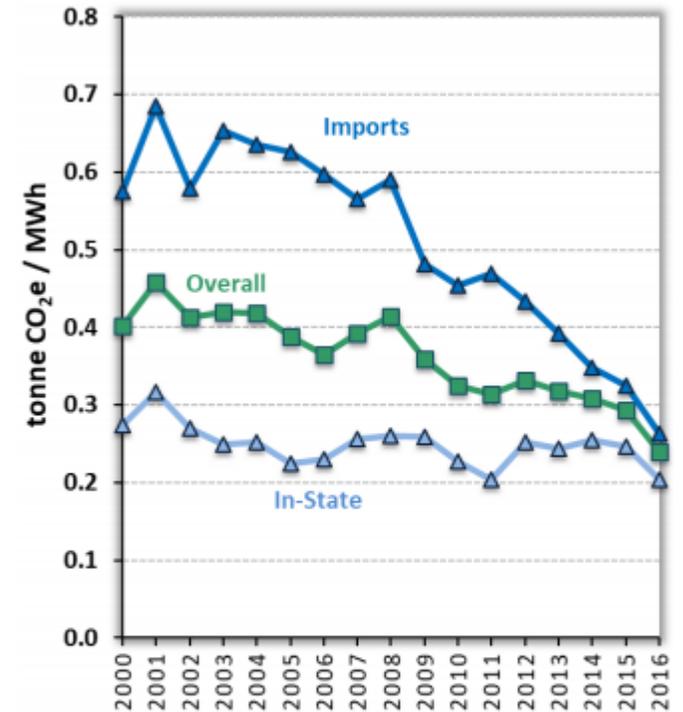


Figure 8. GHG Intensity of Electricity Generation.* This figure shows trends in GHG intensities of electricity generated by in-state power plants, electricity imported from outside of California, and the overall GHG intensities aggregating both in-state generation and electricity imports.

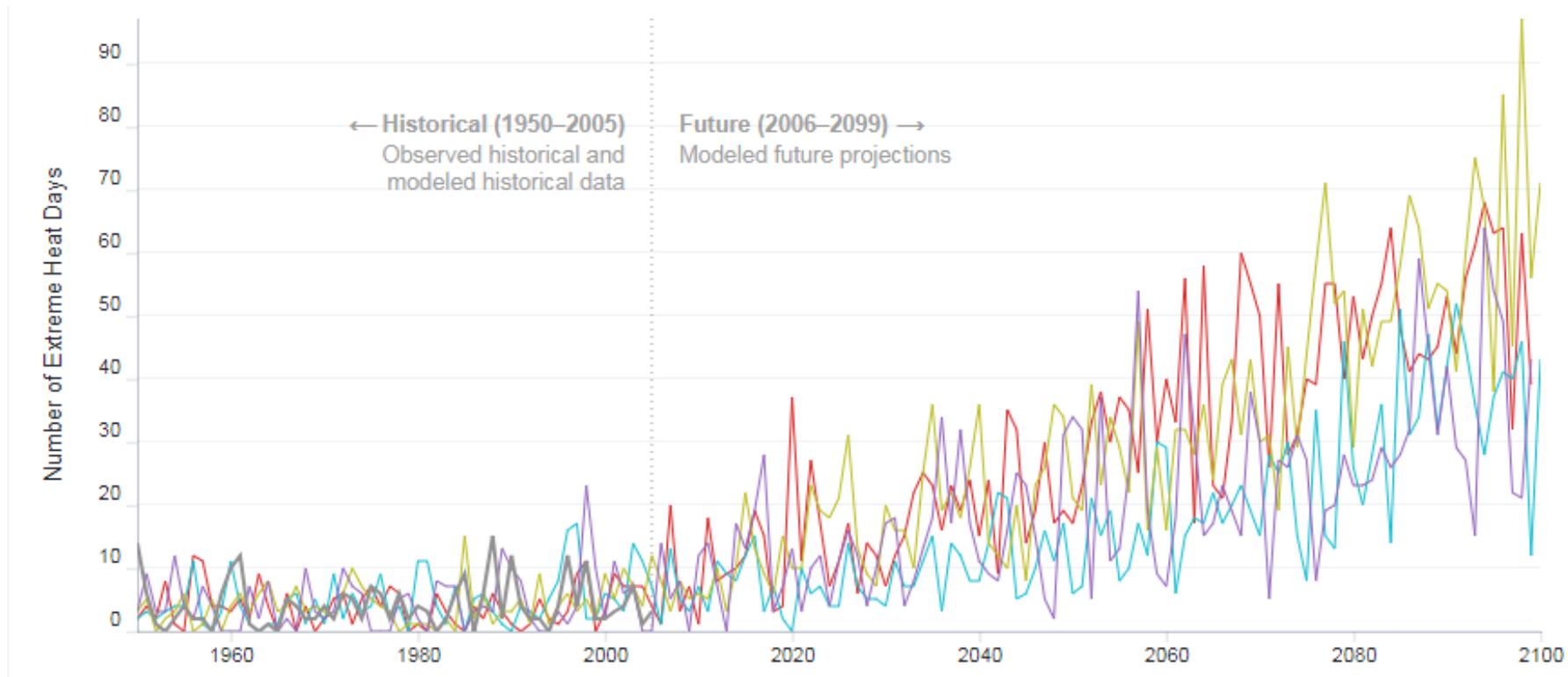
A wide-angle photograph of a desert landscape. In the foreground, there are several spiky yucca plants and low-lying shrubs on a rocky, reddish-brown hillside. A paved road winds through the middle ground. In the background, there are layers of mountains under a hazy, overcast sky. The overall color palette is dominated by earthy tones of brown, tan, and muted greens.

CALIFORNIA'S FOURTH CLIMATE CHANGE ASSESSMENT



California Climate Change Impacts: Greater Variability and Higher Extremes

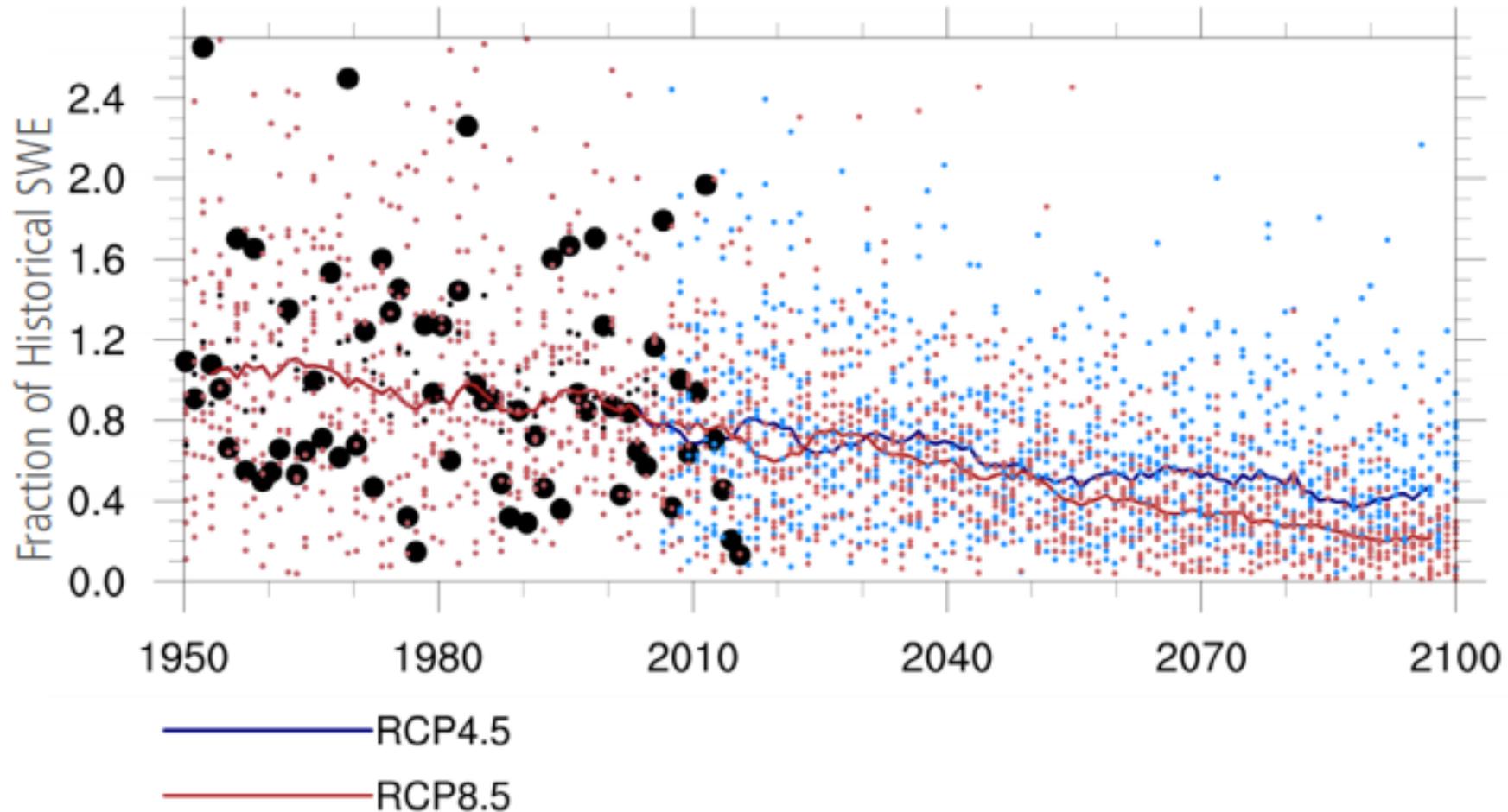
Days per year when maximum temperature in Sacramento is projected to be above 103.8 °F under the RCP 8.5 scenario (emissions rise strongly through 2050 and plateau around 2100).



Source: Cal-Adapt. Data: LOCA Downscaled Climate Projections (Scripps Institution of Oceanography), Gridded Historical Observed Meteorological and Hydrological Data (University of Colorado, Boulder).



California Climate Change Impacts: Average Water Supply from Snowpack is Declining

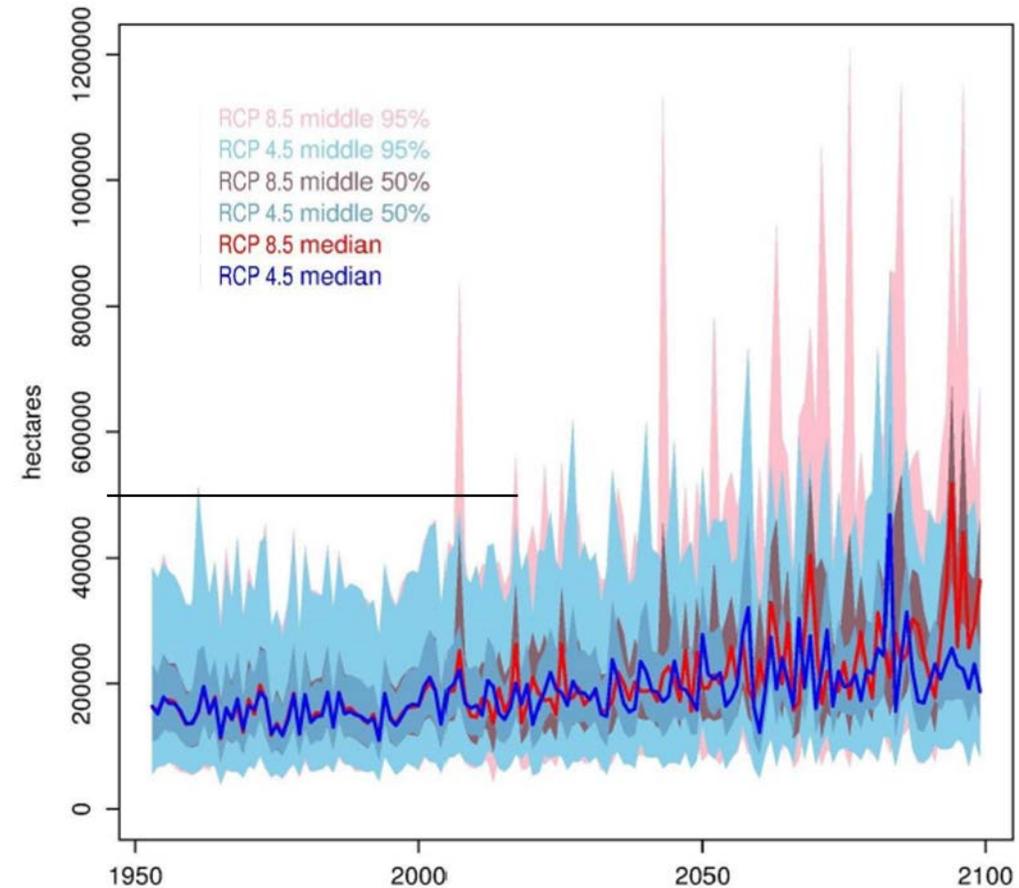


Source: Pierce, D. W., J. F. Kalansky, and D. R. Cayan, (Scripps Institution of Oceanography). 2018. Climate, Drought, and Sea Level Rise Scenarios for the Fourth California Climate Assessment. California's Fourth Climate Change Assessment, California Energy Commission. Publication Number: CNRA-CEC-2018-006.



California Climate Change Impacts: Extreme Wildfires Expected to Increase

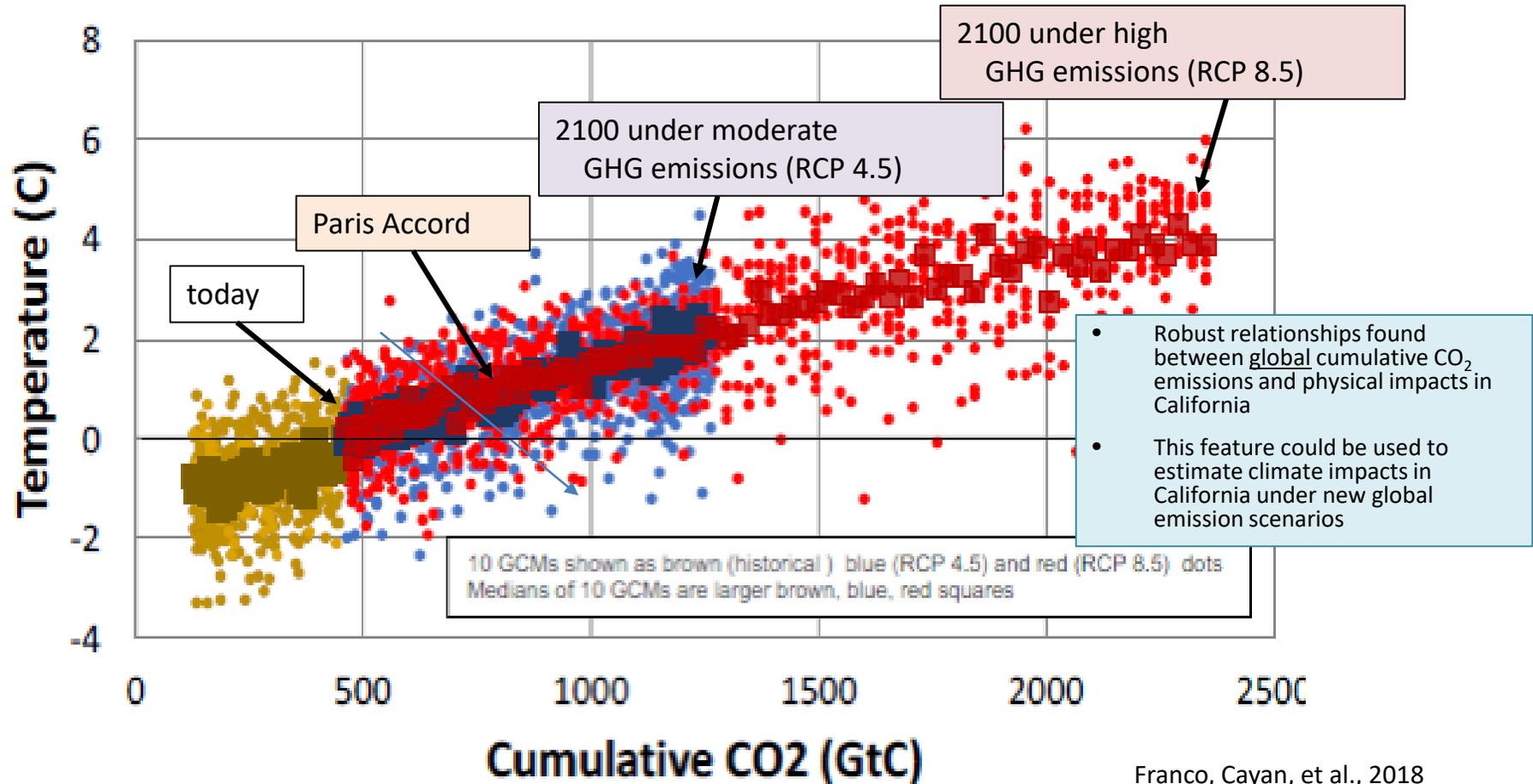
- In 2017, California wildfires burned about 500,000 hectares (horizontal black line)
- RCP4.5 (blue) vs 8.5 (brown, red, pink): median, 50 percentile, and 95 percentile



Source: Westerling (2018). *Wildfire Simulations for the Fourth California Climate Assessment: Projecting Changes in Extreme Wildfire Events with a Warming Climate*

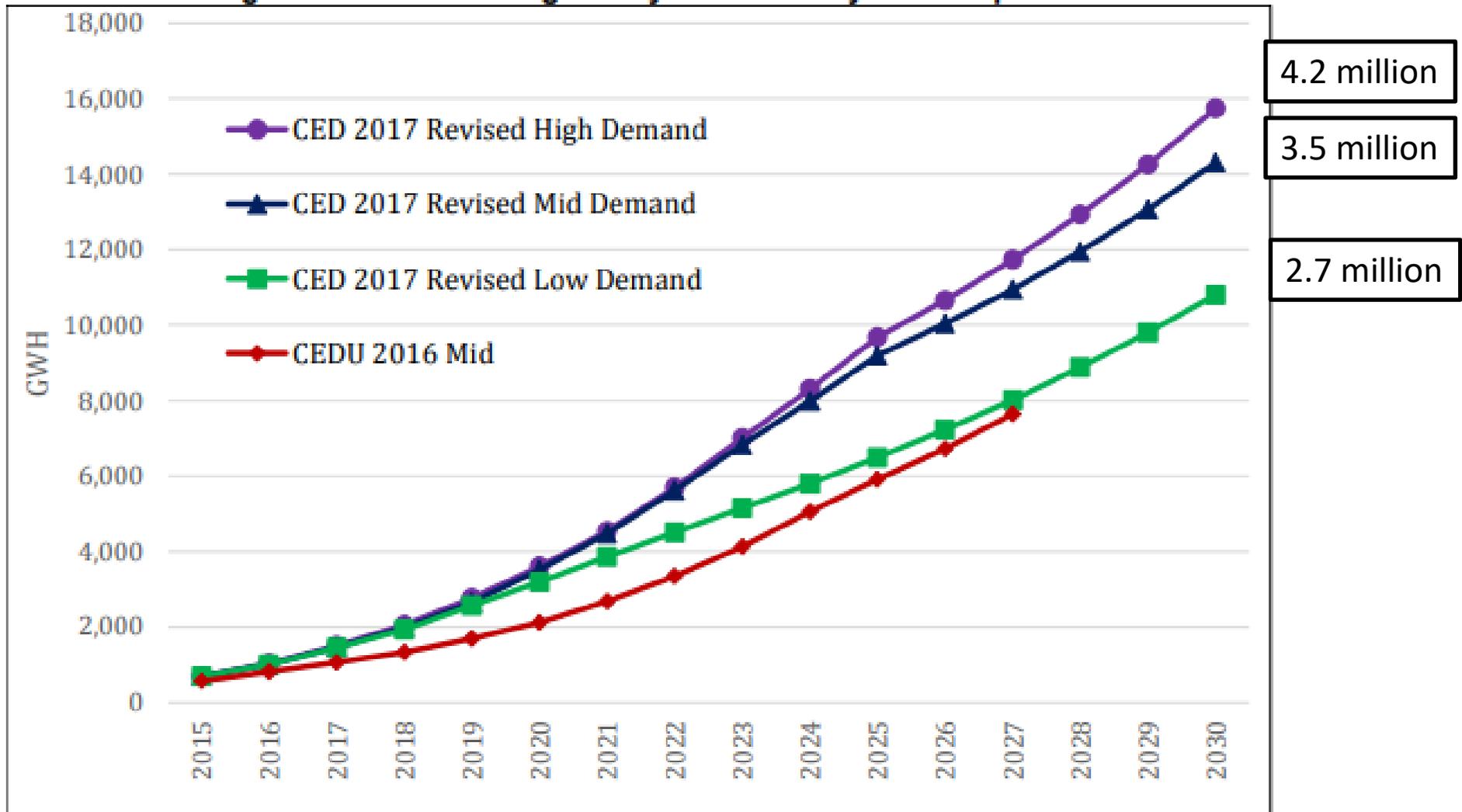


Adaptation Needs Will be Less if Global GHG Emissions are Greatly Reduced





Light-Duty EV Charging





Statewide PV Capacity

